

WHAT IS CLAIMED IS:

1. A spring-loaded assembly for coupling a connector to a computer component comprising:

5 an assembly housing operable to receive a portion of a screw used to couple the connector to a chassis of an information handling system;

10 a sliding block disposed in the assembly housing and operably engaged with the screw, the sliding block operable to move the connector between a first position and a second position; and

15 a spring placed between the sliding block and at least one wall of the assembly housing, the spring operably provides an axial force to bias the connector to a first position, whereby coupling the connector to the computer component causes the connector to move to a connected position intermediate the first and second position.

20 2. The spring-loaded assembly of Claim 1, further comprising an extension member coupled to and extending from the block, the extension member operable to guide the movement of the spring.

25 3. The spring-loaded assembly of Claim 2, further comprising an end stop coupled to the assembly wall adjacent the spring, the end stop operable to interact with the extension member to fix the position of the second position.

4. The spring-loaded assembly of Claim 1, wherein the spring-loaded assembly is formed on a portion of the chassis of an information handling system.

5 7. The spring-loaded assembly of Claim 1, wherein the spring-loaded assembly is formed as a part of the connector.

10 8. The spring-loaded assembly of Claim 7, wherein the connector is a modified SATA connector.

9. The spring-loaded assembly of Claim 1, wherein the axial force comprises a connector insertion force.

10. An information handling system comprising:
a processor;
a memory communicatively coupled to the processor;
a connector communicatively coupled to the
5 processor, the connector operable to provide
communications between the processor and a computer
component;
the connector having electrical contacts, the
electrical contacts operable to couple to mated
10 electrical contacts of the computer component;
a spring-loaded assembly associated with the
connector, the spring-loaded assembly operable to move
the connector along an axial direction to couple with the
computer component; and
15 the spring-loaded assembly including:
an assembly housing operable to receive a
portion of a screw used to couple the connector to a
chassis of an information handling system;
a sliding block disposed in the assembly
20 housing and operably engaged with the screw, the
sliding block operable to move the connector between
a first position and a second position; and
a spring placed between the sliding block and
at least one wall of the assembly housing, the
25 spring operably provides an axial force to bias the
connector to a first position, whereby coupling the
connector to the computer component causes the
connector to move to a connected position
intermediate the first and second position.

11. The information handling system of Claim 10,
wherein the computer component is a hard disk drive.

5 12. The information handling system of Claim 10,
wherein the connector is a Serial Advanced Technology
Attachment (SATA) connector.

10 13. The information handling system of Claim 9,
wherein the connected position varies based on variations
in manufacturing tolerances of the computer component.

15 14. The information handling system of Claim 9,
wherein the spring-loaded assembly further comprises a
guide pin operable to align the electrical contacts of
the connector with the mated electrical contacts of the
computer component.

15. A method of connecting a computer component to an information handling system, comprising:

5 attaching a connector to a portion of an information handling system, the connector associated with a spring-loaded assembly having a first position and a second position such that the connector is biased to a first position;

10 attaching the computer component to a mounting position with the information handling system such that the computer component forms a connection with the connector, the computer component operable to be in electrical communications with the information handling system via the connector; and

15 based on the mounting position of the computer component, automatically moving the connector in an axial direction to a connected position that is intermediate the first and second position.

20 16. The method of Claim 15, wherein the movement in the axial direction is based on a connector insertion force.

25 17. The method of Claim 15, wherein the connection is a blind plug-in connection.

30 18. The method of Claim 15, further comprising maintaining an axial force between the connector and the computer component to prevent uncoupling due to shock or impact.

19. The method of Claim 15, wherein automatically moving the connector further comprises aligning a guide pin on the connector with the computer connector.

5 20. The method of Claim 15, further comprising determining distance between the first position and the second position based on manufacturing tolerance of the computer component.